Interna*'	Application No
(E)	03/04013

A. CLASSIFICATION OF SUBJECT H03F1/02 H04B1/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) $IPC \ 7 \quad H03F \quad H04B$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, INSPEC

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 122 491 A (FRANCISCO MARK) 19 September 2000 (2000-09-19) column 2, line 29 - line 52	1-21
X	US 5 977 829 A (WELLS GLENN E) 2 November 1999 (1999-11-02) column 2, line 14 -column 3, line 61; figure 1	1-21
X	US 5 923 215 A (HANS RAVINDER SINGH) 13 July 1999 (1999-07-13) abstract; figure 1	1-21
X	US 2002/132652 A1 (VU KHOI TAM ET AL) 19 September 2002 (2002-09-19) page 1, left-hand column, line 50 - line 51	1,11,21

	• • • • • • •		
Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.		
Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the International filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but later than the priority date claimed	 "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to Involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family 		
Date of the actual completion of the international search 19 December 2003	Date of mailing of the international search report 08/01/2004		
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL ~ 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Lindberg, P		

INTERNATIONAL SEARCH REPORT

nation on patent family members

Internat'	' Application No	
/	03/04013	

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6122491	Α	19-09-2000	NONE		
US 5977829	Α	02-11-1999	NONE		
US 5923215	A	13-07-1999	DE JP	19718109 A1 10051243 A	13-11-1997 20-02-1998
US 2002132652	A1	19-09-2002	WO	02075920 A2	26-09-2002